

AMENDMENTS TO THE CLAIMS

Claims 1-4 (Cancelled)

Claim 5. (Previously Presented) A polishing apparatus comprising:

a turn table having a polishing surface;
a top ring for holding an object to be polished by said polishing surface;
an end point detecting mechanism operable to indicate an end point of polishing and to output a measured signal; and
a frequency measuring device, said frequency measuring device comprising
a plurality of n-nary counters, and
a plurality of gate circuits operable to receive the measured signal outputted by said end point detecting mechanism, and to supply the measured signal to an input of said plurality of n-nary counters, respectively, in a respective order at given time intervals, wherein said frequency measuring device is operable to supply a frequency measurement result of the measured signal from said plurality of n-nary counters every given time interval.

Claim 6. (Previously Presented) A polishing method for indicating an end point of polishing of an object to be polished by a turn table having a polishing surface, said method comprising:

providing a plurality of n-nary counters; and
supplying a measured signal to a respective input of said plurality of n-nary counters in a respective order at given time intervals;
wherein a frequency measurement result of the measured signal is supplied from said plurality of n-nary counters every given time interval.

Claims 7-18 (Cancelled)

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Claim 19. (Previously Presented) A device for measuring a frequency of a measured signal, said device comprising:

a plurality of n-nary counters;

a plurality of gate circuits operable to supply the measured signal to an input of said plurality of n-nary counters, respectively, each of said plurality of gate circuits being operable to open in a respective order at a certain time interval;

a latch circuit operable to receive a signal from each of said plurality of n-nary counters, wherein a frequency measurement result of the measured signal is supplied from said plurality of n-nary counters.

Claim 20. (Currently Amended) A method for transmitting a signal for use in a frequency measuring device ~~measuring the frequency of a measured signal~~, said method comprising:

supplying ~~the~~ a signal from a plurality of gate circuits, each of ~~the said~~ plurality of gate circuits being operable to open in a respective order at a certain time interval; and

receiving ~~the said~~ signal from each of ~~the said~~ plurality of gate circuits by a latch circuit, ~~the said~~ latch circuit being operable to output the signal in the respective order at a certain time interval.

Claim 21. (Previously Presented) An apparatus for polishing a substrate, said apparatus comprising:

an end point detecting mechanism operable to detect an end point of polishing and to output a polishing information signal;

a frequency measuring device comprising a plurality of n-nary counters, each of said plurality of n-nary counters being operable to output a signal according to the polishing information signal, and said frequency measuring device being operable to measure the signal output by said plurality of n-nary counters.

Claim 22. (Previously Presented) An apparatus in accordance with claim 21, wherein said frequency measuring device further comprises a plurality of gate circuits operable to receive the polishing information signal from said end point detecting mechanism and to supply the polishing information signal to said plurality of n-nary counters.

Claim 23. (Previously Presented) An apparatus in accordance with claim 22, wherein each of said plurality of gate circuits opens in a respective order at a certain time interval.

Claim 24. (Previously Presented) An apparatus in accordance with claim 23, wherein said frequency measuring device further comprises a latch circuit operable to receive the signal from each of said plurality of n-nary counters.

Claim 25. (Currently Amended) A polishing method, said method comprising:
providing a plurality of n-nary counters;
supplying a signal to the said plurality of n-nary counters to be measured by the said plurality of n-nary counters;
measuring a frequency of the signal measured by the said plurality of n-nary counters; and
detecting an end point of polishing according to the frequency of the measured signal.

Claim 26. (Currently Amended) A method of polishing a substrate, said method comprising:
providing a plurality of n-nary counters;
supplying a signal to the said plurality of n-nary counters to be measured by the said plurality of n-nary counters;
measuring a frequency of the signal measured by the said plurality of n-nary counters; and
detecting a thickness of a layer formed on the said substrate according to the frequency of the measured signal.

Claim 27. (Cancelled)